

organs. The body was opened a little to the right of the mid-dorsal line. In the middle are seen the three longitudinal muscles of the trivium (*tr.*). On the right is the right muscle of the bivium (*r.br.*), and on the left is the left one (*l.br.*). The Cuvierian organs (*c.o.*) are seen forming a great mass attached to the left respiratory tree (*l.rsp.*), which is attached by a mesentery to the rectum (*r.*). Some of the Cuvierian organs (*c.o.*') are seen passing through an aperture in the wall of the cloaca (*cl.*) and protruding from the anus (*an.*). On the right is seen the right respiratory tree (*r.rsp.*), the extremity of which has been loosened from its attachments and hangs over the side of the dissection.

XXXII.—*Descriptions of some new Species of African Lepidoptera.* By W. J. HOLLAND, Ph.D., F.E.S., Pittsburgh, U.S.A.

RHOPALOCERA.

Nymphalidæ, Swains.

Genus THALEROPIS, Staudinger.

1. *Thaleropsis trigona*, sp. n.

♂. Antennæ black above, brown below. Front white; eyes brown; palpi black above and whitish below; collar and thorax black, spotted with yellow. The end of the abdomen is yellow above and tipped with black. The underside of the body is bluish grey. The anterior wings are strongly arched on costa, produced and rounded at apex, strongly excavated upon the outer margin, with the outer angle scarcely rounded and the inner margin straight. The costa of the posterior wing is one fourth shorter than the inner margin of the anterior wing; the outer margin is very convex and produced at the anal angle in the form of a short and broad tail. The markings of the upper surface resemble those of *T. kinugnana*, Grose Smith, but the macular bands of yellow traversing the median area of both wings differ from those of all other species hitherto described in that they are subtriangular in form, increasing in width from the costal region towards the inner margins of the wings; and there are no subcostal yellow spots as in *T. kinugnana* and *T. uhelda*. The markings of the underside are much as in *T. (Pseudacrea) uhelda*, Mabille, but the base of the posterior wing is umber and the median transverse band of this wing

is broader and darker than in that species and is divided in the middle by a line of light grey.

Expanse of wings 50 millim.

Hab. Lake Onauga, Gaboon, W. Africa.

The type is in the collection of the author and is unique.

Note.—*T. kinugnana*, *T. uhelda*, and *T. trigona* are not strictly referable to *Thaleropsis*, and should compose a new genus.

Lycæniidæ, Steph.

Genus PENTILA, Westw.

2. *Pentila umbra*, sp. n.

♂. Recalling *P. rotha*, Hew., in the general style of its markings, but differing in the arrangement of the spots in the cell of the fore wing and in the greater breadth of the black outer margins, and in the peculiar dull wood-brown ground-colour of the wings above and below.

Expanse of wings 38 millim.

Hab. Upper valley of the Ogové (or Ogowé).

Type in Collection Holland.

D'URBANIA, Trim.

3. *D'Urbania cornu-copiae*, sp. n.

♂. Antennæ, head, thorax, and abdomen black on the upperside, grey on the underside. The ground-colour of the upperside of both wings is a warm red, restricted upon the primaries to a curved median band widening from about the middle of the costa to the outer angle and the middle of the inner margin, and presenting the outline of a "horn of plenty." The remainder of the primary is dark brown. The posterior wing is irregularly margined outwardly and profusely speckled upon the inner margin with dark brown. Upon the underside of the primaries the red curved fascia reappears, but the colour is less brilliant than upon the upperside. The costa and the apex of the primaries are broadly lilac-grey, minutely spotted with brown; the base and a transverse subapical band are fuliginous. The posterior wings are of the same lilac-grey colour as the apical portion of the primaries, and are mottled with small brown spots and traversed beyond the cell by an irregularly curved narrow black line, and further ornamented upon the margin by subhastate brown spots disposed upon the intraneural spaces.

Expanse of wings 24 millim.

Hab. Ogové Valley, Gaboon, W. Africa.

Type in Collection Holland.

Genus LACHNOCNEMA, Trim.

4. *Lachnocnema Reutlingeri*, sp. n.

♀. Body and wings dark brown above. Both wings are crossed beyond the cell by a broad, oblique, macular band of pale yellow curving inwardly. The ends of the cells are marked by heavy black spots. Upon the underside the markings are as in *L. bibulus*, Fabr., but larger, darker, and more distinctly defined upon the much paler ground-colour, except the median macular band of the secondaries, in which the spots are paler and red in tone, and heavily margined with silver externally.

Expanse of wings 44 millim.

Hab. Benita.

Type in Collection Holland.

This species may be readily distinguished from all others of the genus by its large size and the pale yellow bands of the upper surface.

Genus HYPOLYCÆNA, Felder.

5. *Hypolycæna rava*, sp. n.

♀. Upperside dark brown, with an oval orange spot below the cell in the primaries, and the outer third of the secondaries from below the outer to the anal angle likewise orange. The margin of the secondaries is dark brown and the orange area is interrupted by a small circular brown spot just beyond the tail, which is black and minutely tipped with white. The underside has the markings somewhat as in *H. cleala*, Hew., which are characteristic of a large group of African species belonging to this and allied genera.

Expanse of wings 28 millim.

Hab. Kangwe, Ogové River, W. Africa.

Type in Collection Holland.

Genus PSEUDALETIS, Druce.

6. *Pseudaletis nigra*, sp. n.

♀. The upper surface is black. On the primaries there is a small white spot at the end of the cell and a moderately broad white subapical band running from before the middle

of the costa, which it does not reach, to below the middle of the outer margin, which it likewise does not reach. Upon the secondaries there is a large white band running from the upper part of the base outwardly and covering the cell, and extending about three fourths of the distance from the base toward the outer margin, which it does not reach. The inner edge of this band is straight and the edge toward the costa is regularly curved. There are two or three blue spots at the anal angle near the tail, which is black. The underside of the primaries has the same markings as the upper, and in addition a subapical white spot beyond the subapical band, and between these a faint curved bluish line. Upon the underside of the secondaries, in addition to the white central band, there are toward the outer margin two faint bluish-white lines converging near the outer margin at the outer end of the broad band. The outermost of these lines is dilated above the third median nervule, and shows a faint white spot at this point. The inner margin and anal extremity of the wing is washed with yellowish olivaceous, and there are two short silvery blue bands bordered with black upon the inner margin, and two black spots outwardly margined with silvery blue at the origin of the tail.

Expanse of wings 45 millim.

Hab. Kangwe, Ogové River, West Africa.

Type unique, in Collection Holland.

Papilionidæ, Leach.

Genus PAPILIO, Linn.

7. *Papilio policenoides*, sp. n.

♂. Having the general appearance of *P. policenes*, Cram., but the green bands which cross the cell of the primaries, except the one nearest the base, are obsolete, and the row of large green spots composing the limbal fascia are more uniform in size than in *policenes*, and the second spot from the inner margin is very feebly produced inwardly at its upper edge, and in some specimens is quadrate. Upon the underside the spots are much reduced in size and the general colour is much blacker than in *policenes*, and the arrangement of the bands is different in important particulars. This may prove to be a seasonal or dimorphic form of *policenes*.

I have a large series of specimens showing great constancy in the markings.

Hab. Talaguga, upon the Upper Ogové.

Type in Collection Holland.

Hesperidæ, Leach.

Genus SARANGESA *, Moore.

Sape, Mabille (nec *Sapæa*, Ploetz).

Erites, Mabille.

Hyda, Mabille.

8. *Sarangesa perpaupera*, sp. n.

♂. The upperside is prevalently dark fuscous, with darker cloudings near the margins and a few obscurely defined dark spots and bands on the limbal area of both wings. There is a large black spot at the end of the cell and two minute translucent subapical spots near the costa of the primaries. The underside is much as the upper, but paler, and the markings of the upperside are reproduced upon the lower side, but are still more obscure. Lower side of palpi greenish grey.

Expanse of wings 27 millim.

Hab. Valley of the Ogové.

Type in Collection Holland.

9. *Sarangesa motozioides*, sp. n.

♂. Resembling *S. motozi*, Wallengr., but may be distinguished by the fact that the lower wing is broadly yellow upon the underside except at the outer angle and the costa, which are brown. The wing is also traversed by a subbasal and median curved band of small spots.

♀. Much darker than the male upon the lower surface and paler than upon the upper surface of the male. The translucent vitreous spots in this sex are also much larger, especially the spot near the origin of the second and third median nervules, which is relatively very large and subquadrate.

There are numerous other minor points of distinction between this species and the true *motozi*; but the prevalence

* Mons. P. Mabille has recently created a genus under the name *Hyda* for the reception of his species *micæa* and *tricerata*, and another genus, to which he gives the name *Erites*, and to which he refers *djelalæ* and allied species. He has also referred to a genus *Sape* (? = *Sapæa*, Ploetz) *motozi* of Wallengren and allied forms. A thoroughly critical examination of the neurulation and sexual organs of these species made by Mr. Watson at the British Museum shows that they are all truly referable to the genus *Sarangesa* of Moore, and therefore *Hyda* and *Erites* of Mabille sink as synonyms. The type of *Sapæa*, Ploetz, is *Abantis bicolor* of Trimen, which is strictly congeneric with *A. tentis*, Hopff., the type of *Abantis*. Therefore *Sapæa* likewise falls.

of the yellow colour upon the underside of the secondaries will easily enable the student to distinguish the species.

Expanse of wings 33 millim.

Hab. Valley of the Ogové.

Types in Collection Holland.

Genus PARDALEODES, Butl.

10. *Pardaleodes xanthopeplus*, sp. n.

♂. Head and body greenish fuscous, lighter beneath. Fore wings above dark brown, with the base heavily clothed with greenish hairs. Two small spots at end of cell, of which the upper one is the largest; two small subapical spots, of which the lower one is the largest; three small subhastate spots, one above the submedian and one on each of the median interspaces, forming a series of which the middle spot is the largest. All these spots are orange-yellow. The hind wings are heavily bordered above upon the costa with black, which extends over the base and the cell, where there is a small orange spot. The black of the base is partly concealed by a heavy vestiture of greenish hairs. The remainder of the hind wing is bright orange-yellow, and the fringe is of the same colour except just below the outer angle, where it is feebly shaded with brown. Upon the underside the dark portions are more subdued and the lighter portions of the wings not so bright as upon the upperside, and the spots are larger. In addition, upon the anterior wing there is a marginal shade of light fuscous. Upon the posterior wing there are two small yellow spots in the dark costal band, the yellow spot at the end of the cell reappears below as a bifid spot, and there are a few cloudy brown marks in the broad yellow outer margin of the wing.

♀. In the female the spots upon the upperside of the primaries are greatly increased in size. The spots on the cell coalesce and form a large quadrate spot bifid at either end, while the middle spot of the submarginal series is greatly increased and extended toward the cell, coalescing, save for the dark median nerve, with the spot in the cell. In the secondaries the orange-yellow outer margin of the male is contracted into an irregularly oval spot upon the limbal area beyond the cell. Upon the underside the spots are very much as in the male, but larger and conforming to the modifications already noticed as occurring upon the upperside.

Expanse of wings 38 millim.

Hab. Valley of the Ogové.

11. *Pardaleodes astrape*, sp. n.

♂. Upperside of body fulvous, more or less clothed with greenish hairs. Underside of palpi and thorax greenish grey. The prevalent colour of the outer half of the anterior wing is deep black and of the basal half tawny. The base is more or less clothed with greenish hairs. There is a black longitudinal ray in the cell and another just below it at its outer extremity. At the end of the cell there is a double translucent orange-yellow spot, a similar smaller spot below the apex, and two larger spots located upon the median interspaces just below and beyond the cell. The posterior wing is bright orange-yellow, with the costal margin broadly and the inner margin and the outer margin from the outer angle to the first median nervule narrowly black. The fringe is orange. Underside: The anterior wing is honey-yellow from the base to the apical region. The apex and outer margin are broadly ferruginous. The translucent spots of the upper surface reappear. Below the cell near the base there is a heavy black ray, below this a large sagittate lemon-yellow spot with the point toward the base, and covering the middle of the inner margin; this spot and the two translucent spots above it are shaded externally by clouded black markings, deepest in colour at the outer angle. The posterior wing is uniformly orange-yellow, paler than the upperside and without markings, save that the margin from the outer angle to the first median nervule is narrowly margined with pale brown, and just where this marginal shade terminates there are two small submarginal brown spots.

Expanse of wings 28 millim.

Hab. Gaboon.

Type in Collection Holland.

12. *Pardaleodes xanthioides*, sp. n.

♂. Resembling *Carystus** *xanthius*, Mab., but fully one third smaller in size. The markings are as in *xanthius*, but at the base of the primaries near the inner margin there is a broad yellow ray with a round black spot near its extremity, and the black margin of the secondaries is more even and the yellow enclosed area rounded on the side of the costa, and not nearly straight, as in *xanthius*. Upon the underside the

* I find that the neuration and the structure of the palpi and antennæ of *Carystus xanthius*, Mab., and of the present species do not differ appreciably from *Pardaleodes*. While *xanthius* is a much larger insect than any other species of *Pardaleodes* known to me, it certainly is not a *Carystus*.

basal yellow ray of the primaries does not reappear. The colour of the secondaries is yellow as upon the upper surface, and not whitish as in *xanthius*. There is no black upon the costa. The border of the outer margin is uniformly brown, slightly produced at the first median nervule. There is a very small brown spot below the cell halfway from the base near the inner margin.

♀. Like the male, but lacking the yellow basal ray on the primaries.

Expansion of wings 32 millim.

Hab. Valley of Ogové River.

Type in Coll. Holland.

Genus OSMODES *, Watson, MS.

13. *Osmodes lux*, sp. n.

♂. Head, thorax, and abdomen brown above, more or less clothed with shining fulvous hairs. Palpi, thorax, and end of abdomen below greenish grey. Upperside: Anterior wing black, with the basal half of costa and base suffused with greenish fuscous; at the end of the cell there is a bright fulvous spot, at the apex a large subquadrate spot of the same colour, and below it a broad transverse band of the same colour running from above the third median nervule to the middle of the inner margin and indented between the submedian and first median nervule. The posterior wing is bright fulvous, very heavily bordered on the costa with black, the black area being extended inwardly at the end of the cell, which it partially covers. The margin is bordered with black, which is produced inwardly just above the slightly lobed anal angle. The inner margin is more heavily bordered with black. The sexual brand is slightly darker in colour than the body of the wing and is oval in form. The underside is pale brownish. The spots of the upperside reappear upon the primaries. Upon the underside of the secondaries the basal half is dark brown and the limbal area washed with yellow, and the outer and inner margins clouded with pale brown. There are four silvery-white spots margined with dark brown upon the wing—one on the cell, one near the middle of the costa, one beyond the cell, and one between the first and second median nervules.

* The type of this new genus, which Lieut. Watson has erected, is *Pardaleodes laronia*, Hew. The genus may be recognized by the sexual brand upon the cell of the posterior wings of the males. It includes, among other species, *laronia*, Hew., *adon*, Mab., *thora*, Mab., and *argenteigutta*, Mab.

♀. The female is marked upon the upperside as the male, but the wings are much blacker and the spots are reduced in size, and the margin of the secondaries is much more heavily bordered with black. Upon the underside the primaries are blackish except the basal end of the costa and the apex, which are pale brownish. The spots upon this wing are as in the male. The secondaries have, in addition to the four silvery spots which are found in the male, two small additional spots closely collocated between the two outer spots, which are larger than in the male. The submarginal area is yellower than in the male. The margin is indicated by a fine brown line, the fringe is yellow and is chequered with brown at the ends of the nervules from the outer angle as far as the first median nervule.

Expanse of wings 30 millim.

Hab. Valley of the Ogové.

Type in Coll. Holland.

Genus TENIORHINUS*, Watson, MS.

14. *Teniorhinus Watsoni*, sp. n.

♂. Head, thorax, and abdomen dark brown above; palpi greyish below, thorax and abdomen dull luteous below. Upperside: Wings dark brown, nearly black; upon the primaries a faint subapical longitudinal streak and an irregular oblique transverse band beyond the cell extending from third median nervule to before the middle of the inner margin. Upon the secondaries a broad transverse band beyond the cell, running from near the middle of the outer margin below the cell, and continued upward toward the base as a narrow line. The inner margin fold is clothed with fulvous hairs. All the spots of the upper surface are bright fulvous. Underside: Both wings are pale tawny, with the spots of the upper surface reproduced and pale yellow, more or less translucent when held up to the light. Upon the primaries there is a black longitudinal shade upon the cell, and at its extremity a quadrate spot of the same colour, and upon the middle of the outer margin a similar shade.

Expanse of wings 23 millim.

Hab. Gaboon.

Type in Coll. Holland.

* This genus has been erected by Lieut. Watson to receive this and allied species of small size, characterized by slender and widely separated palpi porrected and recurved, and with the apex of the anterior wing rounded.

Genus OXYPALPUS*, Watson, MS.

15. *Oxypalpus annulifer*, sp. n.

♂. Head and body dark brown above, lighter below; palpi and breast greyish. Wings above very dark rich brown, spotted with dark fulvous. The spots are as follows:— Upon the primaries a small subapical spot; a small linear spot at the end of the cell near the lower edge; three sub-hastate spots forming an oblique discal series beyond the cell, the middle spot, which is the largest, immediately adjacent to the small spot in the cell, a short basal ray on the inner margin. Upon the secondaries there are two linear spots beyond the cell upon the median interspaces near their origin, forming a short fascia at right angles to the inner margin. The fringes are dark fulvous and the fold of the inner margin is marked by fulvous hairs. Upon the underside the primaries are much lighter than upon the upperside. The costa at the base and the apex are brownish grey. The spots of the upperside are reproduced, but much larger and less sharply defined. The secondaries upon the underside are dark ferruginous brown, shading near the middle of the inner margin into yellowish brown. The costa near the base is blackish. There are two minute black spots near the base and a median and a submarginal transverse band of blackish annular spots. The margin is bordered with black, heaviest at the anal angle. The fringes are fulvous.

Expanse of wings 32 millim.

Hab. Ogové Valley.

Type in Coll. Holland.

Genus PROCAMPTA †, gen. nov.

16. *Procampta rara*, sp. n.

♂. The prevailing colour of the body and wings above and below is dark umber, lighter below and darkest upon the

* The type of this genus, which will shortly be published by Lieut. Watson, is *Pamphila ignita*, Mabilie.

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PROCAMPTA, gen. nov.

Allied to *Anisochoria*, Mab. Body slender. Palpi moderately long, slender, porrect, appressed, with the second article heavily clothed with hairs and the terminal article slender. Fore wing rounded at base, convex on middle of costa, and slightly concave before apex; apex truncate outer margin straight; outer angle not rounded, inner margin straight. Posterior wing subpyriform and very convex on outer margin.

Type *P. rara*, Holland.

upperside of the secondaries. The wings are marked with moderately large black spots, one at the end of the cell in the primaries followed by a median and submarginal band of spots. Upon the secondaries the spots are arranged as a basal, median, and submarginal transverse series. In addition, upon the primaries there is a very minute translucent spot near the end of the cell and a subapical series of three similar spots, two just below the costa and on a line at right angles to it and the third a little below and beyond the second spot.

Expanse of wings 33 millim.

Hab. Ogové Valley.

Type, which is unique, in Coll. Holland.

Genus *TRICOSEMEIA* *, gen. nov.

17. *Tricosemeia subolivescens*, sp. n.

♂. Both wings and body deep black above, with the hairy patch upon the secondaries sooty and the shining area upon the costa of the secondaries testaceous. Near the apex of the primaries just below the costa are four minute translucent spots forming a quadrilateral, and below these, just above the third median nervule, a similar spot. Upon the underside the primaries are brown outwardly, the basal area is testaceous, with a broad patch of sooty scales at the lower basal edge of the cell, which they partly invade. The costa at the base is olivaceous. The posterior wing below is broadly yellowish olivaceous; the fringes are brown on the outer margin, there are two short and narrow parallel brown lines at the end of the cell, and a curved fascia of five brown spots running parallel to the margin from above the middle of the cell to above the third median nervule. The second spot from the direction of the base in this series is the largest. Lower side of body olivaceous.

Expanse of wings 33 millim.

Hab. Matabele Land.

Type in Coll. Holland.

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TRICOSEMEIA, gen. nov.

(*θριξ, pilus*; *σημείον, signum*.)

Near *Tagiades*, Hübn. Body slender; antennæ half as long as costa of anterior wing, slender, swollen and slightly recurved at tip. Palpi short, very hairy, and the last article short and slender and nearly hidden in the hairy vestiture of the second article. Fore wing subtriangular, with the costa and the outer margin very convex and the inner margin straight. Posterior wing subpyriform, the costa produced or lobed near the base; the outer margin convex and the inner margin gently rounding